Amendments to the Claims

Please amend claims 1, 11, 16, 17 and 21; cancel claims 2, 14-15 and 18-20; and add new claims 22-26, all as shown below. All pending claims are reproduced below, including those that remain unchanged.

1. (Currently Amended) A method for discriminatively selecting keyframes representative of segments of a source digital media, comprising the steps of:

obtaining said source digital media for which keyframes are to be selected, wherein said digital information contains a plurality of segments;

pre-processing said digital information to obtain a plurality of feature vectors; and

discriminatively selecting a keyframe for each segment, wherein the keyframe for each segment is selected by comparing a candidate keyframe of one segment with other frames from the remaining plurality of segments and determining a dis-similarity value of said candidate keyframe dependent upon said step of comparing, wherein each selected keyframe is both representative of the segment the selected keyframe originates from and distinguishable from other selected keyframes which are representative of the remaining plurality of segments.

2. (Cancelled)

3 (Original) The method of Claim 1, wherein said source digital media includes a plurality of items of digital media.

4. (Original) The method of Claim 3, comprising the step of:

concatenating said plurality of items of digital media into one item of source digital media.

5. (Original) The method of Claim 1, wherein said source digital media is digital video.

6. (Original) The method of Claim 1, wherein said source digital media is a digital image.

7.   (Original) The method of Claim 1, wherein said source digital media is digital audio.

8.   (Original) The method of Claim 1, wherein said source digital media is a digital text.

9.   (Original) The method of Claim 1, wherein said source digital media is a concatenation of digital video and a digital image.

10.   (Original) The method of Claim 1, further comprising the step of:

        determining, subsequent to said step of obtaining, if said source digital media includes more than one item of digital media.

11.   (Currently Amended) The method of ~~Claim 1~~ Claim 10, further comprising the step of:

        concatenating said digital media into one item of source digital media if it is determined that said source digital media includes more than one item of digital media.

12.   (Original) The method of Claim 1, wherein each of said plurality of feature vectors are representative of a frame of said source digital media.

13.   (Cancelled)

14.   (Cancelled)

15.   (Cancelled)

16.   (Currently Amended) The method of Claim 1, wherein said step of discriminatively selecting a keyframe further includes the steps of:

        comparing a candidate keyframe for a first segment of said plurality of segments with other frames from said first segment;

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determining a similarity value of said candidate keyframe dependent upon said step of comparing a candidate keyframe for a first segment; <u>and</u>

~~comparing said candidate keyframe with frames from the remaining plurality of segments;~~

~~determining a dis-similarity value of said candidate keyframe dependent upon said step of comparing said candidate keyframe with frames from the remaining plurality of segments; and,~~

selecting a keyframe based upon said similarity value and said dis-similarity value that is both representative of said first segment and distinguishable from other selected keyframes.

17.   (Currently Amended) A method for discriminatively selecting keyframes representative of digital information, comprising the steps of:

obtaining said digital information for which a keyframes are to be selected,

segmenting said digital information into a plurality of segments;

pre-processing said digital information to obtain a plurality of feature vectors<u>, wherein each feature vector is representative of a candidate keyframe</u>; [[and]]

<u>determining a mean feature vector for each segment using latent semantic indexing; and</u>

discriminatively selecting a keyframe for each segment<u>, the candidate keyframe whose feature vector is the closest to the mean feature vector being selected as the keyframe for each segment</u>, wherein each selected keyframe is both representative of the segment the selected keyframe originates from and distinguishable from other selected keyframes which are representative of the remaining plurality of segments.

18.   (Cancelled)

19.   (Cancelled)

20.   (Cancelled)

21.   (Currently Amended)   A computer-readable medium having executable instructions stored thereon that performs the method of discriminatively selecting keyframes representative of digital media, comprising the steps of:

obtaining said digital media for which keyframes are to be selected;

segmenting said digital information into a plurality of segments;

pre-processing said digital information to obtain a plurality of feature vectors; and

discriminatively selecting a keyframe for each segment, wherein the keyframe for each segment is selected by comparing a candidate keyframe of one segment with other frames from the remaining plurality of segments and determining a dis-similarity value of said candidate keyframe dependent upon said step of comparing, wherein each selected keyframe is both representative of the segment the selected keyframe originates from and distinguishable from other selected keyframes which are representative of the remaining plurality of segments.

22.   (New) The method of Claim 1, wherein the candidate keyframe having the largest goodness function value within each segment is discriminatively selected to be the keyframe for the segment it originates from.

23.   (New) The method of Claim 22, wherein the goodness function value for each candidate keyframe comprises a subtractive figure, wherein the out-of-class dis-similarity value is subtracted from the in-class similarity value for each candidate keyframe.

24.   (New) The method of Claim 22, wherein the goodness function value for each candidate keyframe comprises a rational figure, wherein the in-class similarity value is divided by the out-of-class dis-similarity value for each candidate keyframe.

25.   (New) The method of Claim 16, wherein the in-class similarity values and the out-of-class dis-similarity values are biased when determining the goodness function value for each candidate keyframe.

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26.   (New) The method of Claim 1, wherein said step of discriminatively selecting a keyframe includes the step of discriminatively selecting a plurality of keyframes as being representative of each segment.